

MEASUREMENT OF CHILDREN

TELEPHONE RECALL: HIGHLIGHTS

6-7 VS. 8-11 YEAR OLDS

- O OLDER CHILDREN (8-11) TEND TO BE HEAVIER RADIO LISTENERS THAN YOUNGSTERS, ESPECIALLY 3PM-7PM, MONDAY-FRIDAY

PERSONS USING RADIO

TWO MARKET AVERAGE

MAY 15-21, 1986

	<u>6-7</u>	<u>8-11</u>	
	<u>ADULT</u>	<u>ADULT</u>	<u>SELF</u>
	<u>REPORT</u>	<u>REPORT</u>	<u>REPORT</u>
MON-SUN, 6AM-MID	8.5	10.9	13.3
MON-FRI, 6AM-10AM	6.7	9.4	9.0
MON-FRI, 10AM-3PM	4.6	1.9	3.6
MON-FRI, 3PM-7PM	12.1	20.4	16.2
MON-FRI, 7PM-MID	12.8	9.1	19.8
SAT-SUN, 6AM-MID	11.8	13.5	16.2
(M-S BASE)	(208)	(231)	(213)

ARBITRON RATINGS
RADIO

MHS
1/87
1-12

MEASUREMENT OF CHILDREN

ADVERTISER/AGENCY RESPONSE TO ARBITRON STUDY

- O THEIR PURPOSE:
 - TO GENERALLY UNDERSTAND LISTENING LEVELS OF CHILDREN VS. TEENS VS. TELEVISION
 - TO ANALYZE SYNDICATED PROGRAMS
- O LIMITED DAYPARTS IS ACCEPTABLE
- O NATIONAL DATA IS ACCEPTABLE
 - FACTORS COULD BE APPLIED LOCALLY
- O 6-11 YEAR OLDS PREFERABLE
 - 8-11 YEAR OLDS ACCEPTABLE

ARBITRON RATINGS

RADIO

MHS
1/87

EXHIBIT C

Christenson And DeBenedittis,
"Eavesdropping" on the FM Band:
Children's Use of Radio

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"Eavesdropping" on the FM Band: Children's Use of Radio

by Peter G. Christenson and Peter DeBenedittis

Unlike television, which children tend to watch in the presence of adults, radio is a medium of "self and sibs" that becomes increasingly important to grade schoolers over the years, particularly for the popular music describing the life that awaits them.

Research on children and the media has overwhelmingly focused on television virtually since its commencement as a popular medium. As Wartella and Reeves (14) have documented, the research agenda has tended to follow and respond to public concern about the impact of various media as they have been introduced—first film, then radio, then television—and always at the expense of the earlier medium. Hence, research on children and radio began in earnest about 1930 and was virtually nonexistent by 1950, when research on television began to appear. Television has remained the almost prohibitive primary focus ever since.

If, in failing to consider the role of radio and popular music in children's lives, researchers were taking their lead from declining levels of use, then the readjustment of focus would be perfectly reasonable. But—again paralleling the findings of Wartella and Reeves—radio's popularity with children did not end with the introduction of television. In 1961, Schramm, Lyle, and Parker (13) reported that children spent about an hour a day with radio, with a dramatic increase at adolescence. A decade later, Lyle and Hoffman (11) found that over a third of the sixth graders they interviewed listened to two or more hours a day of radio.

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Radio use was frequent even among first graders, almost half of whom reported listening on the previous day.

These and a smattering of more recent studies support the view that audio media—primarily radio, but records and tapes as well—are used on occasion by most children and quite frequently by many (3, 4, 7, 12). But there has been a notable lack of programmatic research into the levels of children's involvement with radio and its primary content, music. The first goal of the research reported here, then, is to document in some detail (and with recent data) the patterns of children's radio use over the span of the grade-school years. Beyond that, though, we are interested in exploring children's reasons for listening, for which prior research offers only circumstantial evidence.

Since popular music is the main content of the radio medium, one would expect music to form a large part of children's attraction to it.

Increased hours of listening over the grade-school years correspond to increased preferences for pop music, to the point where, by fourth grade or so, children's preferences are quite definitely the Top 40 radio hits (3, 8).

The musical content of radio is, of course, one reason that children's use of television may not be a very good model for understanding their use of radio. Beyond the obvious point that television offers mainly dramatic narrative, not music, the two media differ in some critical ways. Compared to television sets, radios are relatively cheap, portable, and easy to manipulate. Parents are more likely to allow children to have and use their own radios, and children are more likely to feel comfortable with radios as hardware.

More important, perhaps, these factors all contribute to radio's distinct advantage over television in offering children opportunities to listen either alone or in the company of other children outside the view of adults. Furthermore, since radio—especially as a vehicle for music—does not require either a visual orientation or the same sustained cognitive attention to sequential (plot) development as does TV, it is better suited as background to other activities, such as studying, playing games, and conversing. Radio can just as easily be a context as a focus; television is more likely to be a focus (unless it is being used as radio—e.g., listening to MTV).

These primarily technological distinctions between the media exist in the context of an important ideological difference developed by Larson and Kubey (9):

Television is structured and packaged largely by middle-class adults in the mainstream of society, [and] its narrative content is based on traditional American values. . . . Much of the music youth listen to, on the other hand, is created by individuals close to their own age who stand apart and may be at odds with adult society (9, pp. 14–15).

It is largely on the basis of these different agendas that Larson and Kubey explain the between-media differences they found in the social and family context of adolescents' media use. Television, they report, is much more likely to be a family activity than is listening, which is generally done either alone or with friends.

Larson and Kubey were talking about teenagers, and of course there are some relevant differences between adolescents and younger children. When they listen to radio or other sources of pop music, children are essentially "eavesdropping," listening in on a culture to which they may desperately aspire (especially as they near adolescence) but which is not yet theirs. Song lyrics deal with the problems and celebrations of adolescents or young adults—love (lost and found), sex, drugs, drinking, partying—and will mean something different when viewed from the second-grade or even the fifth-grade world. Similarly, the rest of radio's content—the disc jockey's patter, acne cream commercials, and news, both hard and soft—should be less accessible (though perhaps no less intriguing) to children.

The context of listening should differ as well. Although some children as young as third graders conduct a sort of mock dating, the onset of puberty clearly defines a new game. For this reason, and because children's freedom to roam and affiliate outside the home and outside the view of adults is so much more constrained in general, they may listen less than adolescents with their friends. For a grade-school child, especially one who is approaching the transition to adolescence, music may function not so much as a demarcation of peer occasions but as a context and opportunity for private, individualizing experience—apart from parents but perhaps not with friends.

In sum, if we are to gain a truly organic picture of what Anderson (1) has called children's "ecology of information," we need to know more than simply that children pay significant attention to radio. What stations do they listen to, why, and in what social context? Based on interviews with grade-school children, we provide a developmental portrait of the place of radio in children's lives, as indicated by their patterns of use, the gratifications they report seeking and obtaining from radio, and the social context in which they use it. We also hope to shed some light on the comparative role of radio versus television and so have gathered some information on television use for this purpose. Our primary focus is on children and radio, in contrast to other studies (e.g., 11) in which

listening behavior has been considered only as a sort of codicil to the study of other media.

Interviews were conducted with 102 children evenly distributed across grades one through five in a public elementary school in Bellefonte, Pennsylvania.

Bellefonte, one of the two larger towns in the State College Standard Metropolitan Statistical Area in central Pennsylvania, has a population of approximately 10,000. Manufacturing and retail are the principal source of employment for its residents, though many work at Pennsylvania State University, located ten miles away. The children interviewed were almost all white and were lower- to middle-class.

Relatively mountainous terrain makes long-distance radio reception problematic. On most receivers in the area, however, a fairly standard mix of radio fare is available, including two album-oriented rock stations, one Top 40 station, one adult contemporary station, two country-western stations, two Christian stations, one easy listening station, one student-run station (with jazz, rock, new wave, and classical), and two other small stations with mixed formats.

The questions covered frequency of radio listening at various times of the day; what stations were listened to; whether children owned or had their own radio; what children liked about listening to radio; the social context of listening (alone, with family or friends, and so on); and a set of similar questions regarding television use to be used for comparative purposes. Interviews, which combined closed and open-ended questions, were conducted by graduate students enrolled in a course on media and children. The interview session lasted about half an hour to forty-five minutes. Responses to the open-ended questions were recorded verbatim, then coded and categorized later, thus preserving the individual quality of children's comments. The radio variables reported here constituted about one-third of the total content of an interview that involved a variety of questions on audio media in general, as well as background information and a variety of television-related questions.

Although hardware ownership does not ensure frequent use, a child's access to a radio ought reasonably to be an indicator of the centrality of the medium. Rather than ask the children whether they owned a radio—to the first and second grader, certainly, property ownership is a nebulous concept—we asked, "Do you have a radio in your room?" Overall, 52 percent of the children said they did. There was a significant positive association with age ($\tau c = .234, p < .02$)—the pooled proportion for first through third grade was 42 percent compared to 68 percent for the fourth and fifth grade.

Questions on frequency of use were designed to garner reliable responses by requesting simple feedback and by referring when possi-

ble to recent specific times (rather than demanding global estimates of, for instance, how many hours per day a child "usually" listens). For purposes of comparison, several questions were asked concerning television as well as radio.

Overall, 37 percent of the sample said they had listened to radio "before school" on the day we interviewed. There was no significant age-related trend. For television, the overall figure was 52 percent, and there was a significant and negative relationship with age ($\tau c = -.295, p < .01$). A rather striking discontinuity occurred between fourth and fifth grades—60 percent of the first through fourth graders had watched TV before school, compared to only 20 percent of the fifth graders.

Thirty-four percent of the children said they had listened to radio "last night," with a significant positive association between reported use and age ($\tau c = .177, p < .05$). Again, the break occurred between fourth and fifth grades. Among first through fourth graders, 30 percent said they had listened the night before, while 55 percent of the fifth graders said so. For television, the overall percentage was 90 percent "yes," with no age trend.

Since it could not be assumed that children had attended school the day before our interview, in assessing after-school use we asked them to "think about what you usually do after school," focusing on media use. To make it easier for children to remember or settle on a specific medium, we combined "radio, records, and tapes" in this question. Analysis of responses to some more general music-related questions did indicate that radio was the primary audio medium.

Pooling age groups, 27 percent of the total sample reported listening either every day or most days after school, with another significant age trend ($\tau c = .239, p < .002$). Here the change seemed to occur between the third and fourth grades; while only 20 percent of the first through third graders said they listened "every day" or "most days," 42 percent of the fourth and fifth graders said so. Television use after school was more frequent overall—62 percent of the children said they watched every day or most days after school—and was not associated with age.

Children's awareness of and identification with specific stations ought to be an indication of the centrality of radio in their lives. Overall, 69 percent of the sample reported having a favorite station; first and second graders were split 50–50 on this question, while 80 percent of the third through fifth graders reported having a favorite. The age relationship was quite strong ($\tau c = .334, p < .001$).

When those who reported having a favorite station were asked what that station was, a variety of responses were given, including call-letters, promotional names ("X103" or "Quick Rock"), "AM" or "FM," and different types of music. Using the ability to give either call-letters or promotional names as the criterion, 45 percent of the children could

Table 1: Radio gratifications by grade

	First %	Second %	Third %	Fourth %	Fifth %	All grades %
Music	81	85	83	72	90	83
Information	29	20	17	28	35	26
Equipment	5	5	13	17	10	10
Distraction	5	5	4	0	20	7
Background	0	5	13	6	5	6
Just likes it	0	5	9	6	5	5
N =	21	20	23	18	20	102

Note: Columns sum to more than 100 percent because of multiple responses.

name a favorite station; there was a strong relationship with age ($\tau c = .597, p < .001$). Jumps in station recognition occurred between the second and third grade, and again between the fourth and fifth grade. Pooling the first- and second-grade children, only 15 percent could name a favorite station, while 49 percent of the third and fourth graders and 95 percent (19 of 20) of the fifth graders could.

Six major categories of gratification—music, information, equipment, distraction, background, and "just like it"—emerged from responses to questions about what children like about listening to the radio.

At the outset the children were asked, "Do you like listening to radio?" and all replied "yes." They were then asked *what* they liked about it and, as a follow-up, "Is there anything else you like about listening to radio?" Although many children gave only one reason, some gave as many as four, providing us with a multitude of diverse responses for analysis. The percentage of children in each grade offering responses in the six categories is shown in Table 1.

Most of the reasons for listening were related to music. Responses included the names of different songs, genres of music, the names of artists, instruments, the beat, or simply "music." Overall, 83 percent of the children gave a response that fell into the music category.

Seeking information was the other major reason given for listening. Although news, weather, and sports constituted the bulk of these responses, some children liked to hear the time, find out about sales, or, as one second-grade boy said, "hear the menu at school." Twenty-six percent of the children reported listening for information.

Although the other types of reported gratifications were considerably less common than music and information, they are nonetheless interesting. Ten percent of the children referred to the technical or hardware advantages of the radio medium. For example, one first-grade boy

mentioned, "You can just leave it somewhere. You can just turn it on. You don't have to push a lot of buttons like a tape recorder." And a fourth-grade girl said, "You don't have to buy the records you want to hear." Seven percent listened for distraction, saying that they listen to take their mind off being sick, or, as one fifth-grade girl said, "to relax when my brother gets on my nerves." Six percent of the children liked radio as a background activity, i.e., they enjoyed listening while doing homework or getting dressed in the morning; as one fifth-grade boy reported, "It puts me to sleep at night and wakes me up in the morning." Finally, five percent of the children "just like it."

Gratifications did not differ significantly by sex or, surprisingly enough, by grade. Even information was as important to first graders as it was to fifth graders. There was, however, a significant association between age and the number of reasons each child listed. Overall, all of the children listed at least one (including "just like it"), 52 percent two, 11 percent three, and 2 percent four. Only 3 percent of the first to fourth graders listed three or more, while 20 percent of the fifth graders did.

One cannot understand the role of radio in children's lives without understanding the social context of their listening.

The children were asked—again with reference to evening and after school—whether they listened alone or with someone else and, if with someone, with whom. Parallel questions concerning television were also asked.

As reported above, 34 percent of the sample said they had listened to the radio the night before the interview. Of these, 36 percent said they had been alone and 62 percent said they had been with at least one other person while listening. There was no association with age. The corresponding responses for television were overwhelmingly skewed toward "with": 92 percent of those who viewed the night before viewed with others and only 8 percent viewed alone. Younger children were a bit more likely to have watched alone ($\tau c = .113, p < .05$ —indeed, none of the fourth or fifth graders reported having been alone when they watched).

We also inquired about the social context of afternoon listening. As with the question concerning the frequency of afternoon use (and for the same reasons), this question included not only radio but records and tapes as well. Of the 85 children who reported at least some afternoon listening (83 percent of the sample), 47 percent said this was usually done alone and 53 percent said it was usually done in the company of someone else. The tendency to listen alone was strongly associated with age ($\tau c = .385, p < .001$)—only 2 of 13 first graders said they usually listened alone, while 15 of 20 fifth graders said they did so.

Table 2: Percentages of co-listening and co-viewing by type of companion

As % of:	Listening		Viewing	
	With %	Total %	With %	Total %
Friend(s) only	15	8	4	3
Sibling(s) only	46	24	44	31
Young only (inc. sitters, cousins)	72	38	53	38
Parent(s) only	11	6	27	19
Parent(s) or other adult(s) only	20	10	34	24
Adult(s) (with or without children)	28	15	46	33

Note: Figures include only those who reported attending at least "some days"—83 percent of total for listening, 96 percent for viewing. Columns sum to more than 100 percent because some categories are not mutually exclusive.

Afternoon television use was less likely to be solitary—only 29 percent of the 98 children who watched at least sometimes after school said they usually watched alone, while 71 percent usually were with someone. An association between age and solitary viewing ($\tau_{bc} = .175, p < .05$) was attributable entirely to a jump between first and second grades. Only 11 percent of first-grade viewers usually watched alone, whereas 34 percent of second through fifth graders did so.

We next considered only those who reported using media with somebody else present and examined with whom this use took place. A wide variety of responses to the open-ended question was obtained, including friends, siblings, parents, grandparents, friends of parents, babysitters, and so on. To impose some order on the data, we placed responses into one of five categories: friends, siblings, parents, parents and other adults, and adults and children. Two other categories pooled the above: "only young people," in which friends, siblings, cousins, teenagers, and babysitters were combined; and "adults present," which combined all other mutually exclusive categories.

As reported above, by far the majority of the children said they listened to audio media (primarily radio) at least sometimes in the afternoon, about half of those with somebody. Generally, this listening was done in the presence of children and youth only, with no adults present (see Table 2). Looking at the entire sample, some 15 percent listened with friends, 46 percent with siblings, and 72 percent with young people only. Only 28 percent of those who listened with somebody listened with an adult. The pattern for television was somewhat different. Only 4 percent said their afternoon viewing was with friends, 44 percent with siblings, and 53 percent with young people only. Adults were present in 46 percent of the afternoon co-viewing cases.

Since only 36 of the 102 children had listened to the radio the night before, and 21 of these had listened with somebody, the percentages here are best taken as suggestive only. Still, they describe a pattern similar in some respects to that for afternoon use, with the primary difference being that evening listening is more likely to be done with an adult present; 62 percent of those who listened with somebody in the evening listened with one or more adults present, while 38 percent listened only with other young people. A full 81 percent of those who viewed TV with somebody viewed with an adult present; only 19 percent viewed with young people only. In other words, regardless of time of day, audio use was more likely than TV use to take place with young people only and less likely to take place in the presence of parents, grandparents, and other adults.

Our findings about the importance of radio in the lives of grade-school children can be taken as a warrant for further investigation of radio and audio in the developmental process.

In general, children listen frequently, are aware of the radio environment, and know why they like it. Beyond these general conclusions, it is evident that the place of radio depends on the age of the child. Although radio is important to some children even in first grade, the salience of the medium increases dramatically over the grade-school years. More specifically, the years of fourth to fifth grade locate a sharp jump in children's attachment to radio.

Above all else, it is the music that attracts children to radio. This is a consistent result across all age groups, regardless of their preferred genre (which station preferences indicate is usually contemporary rock or pop). Of course, music can be attractive for a variety of reasons—it can elevate mood, provide company in times of solitude, fill time, provide a background for homework or peer interaction, and so on. It is also a highly touted cultural artifact; if you know the Top 40 you're "in"; if not, you're "out." We suspect that all these common music-related gratifications, several of which emerged in this study, apply to some degree for children as well.

Some children did indicate an awareness of some of the psychological gratifications one might expect to underlie the attraction to music; for instance, at least a few mentioned that radio provided distraction and background sound. The only non-music-listening motivation reported by any large proportion of children (about a fourth of the total sample) related to radio listening as a source of information. While it seems intuitively reasonable that the salience of information should increase with age, such a trend did not appear here. We suspect that with a larger sample size it would likely turn out that children of different ages use

radio for different types of information, the older ones paying more attention to the news and the younger ones paying more attention to weather or school lunch menus.

Because many children who did not volunteer a given reason for listening might well have agreed, on hearing it spoken, that it applied to them, the results here ought probably to be taken as giving a sense of the *relative* salience of different motivations and gratifications to children. This is a limitation of the open-ended self-report method used here. Future research will face the methodological problem of how to elicit richer, more specific responses to questions regarding gratifications from a population many of whom lack the vocabulary or self-awareness to discuss such things in even the simplest of terms. This problem also makes it difficult to compare children's uses of radio and music to those of adolescents (5, 6, 10, 15).

Nowhere do the age and medium differences emerge as clearly as with the measures of social context of use.

Afternoon listening was as often done alone as in the company of others, and there was a strong trend toward more solitary use with age—indeed, listening alone was very much the mode among fifth graders. Television, in contrast, was much less likely to be viewed alone in the afternoon and, although there was a relationship between age and solitary viewing, it was not strong and was located entirely in the early grade-school years. Although an age-related trend in solitary viewing was not seen in evening media use, the contrast between the media did emerge—again, listening was more likely to be done alone than viewing, which was overwhelmingly a family activity. The media differed as well in terms of with whom the co-use occurred. During both the afternoon and evening, radio use was less likely to be with adults and more likely to be in the company of young people only than was television use.

It is interesting to interpret these findings in the light of Larson and Kubey's (9) study of adolescents' music (radio and recordings) and television use. Among teens, they say, watching TV and listening to music take place in very different social contexts. When watching TV, teenagers were most likely to be either with family members (47 percent of occasions) or alone (41 percent), almost never with friends. Music was much less likely to be listened to in the company of family members (only 8 percent of occasions) and more likely in the company of friends (23 percent) or alone (69 percent).

A comparison of this pattern to grade-school children's media use in the afternoon (the time of day when audio listening was sufficiently frequent for meaningful between-media comparisons) yields both similarities and differences. First, while children are less likely to use either medium alone than are teenagers, the basic difference between the two

media holds: audio use is considerably more likely to be solitary than TV use. We also found that children, like teenagers, are very unlikely to watch TV with friends. And it is clearly television that is more the medium of family orientation. Fifty-nine percent of the occasions of afternoon TV use were with family members (parents or siblings), compared to 35 percent of afternoon audio use. (This difference was even more striking in the evening, during which family TV use was 81 percent and family audio use 51 percent.)

The differences vis-à-vis teenagers seem to be these: first, as noted, children in general are less likely to consume any medium alone; second, children are much less likely than teenagers to use media in the company of friends. Radio use, especially, is more likely to be with siblings or other young people (including friends, cousins, and babysitters). For children, radio is a medium of "self and sibs." A full 71 percent of children's afternoon media use, for instance, was either alone or with brothers/sisters. If one adds in friends and other young people, 72 percent of afternoon audio co-use (38 percent of total afternoon use) was with young people only, and 28 percent was with parents or other adults (15 percent of total occasions). As we have indicated, evening use was less common than afternoon, making breakdowns into subcategories less stable and meaningful. Generally, though, while children were somewhat more likely to listen with adults in the evening than in the afternoon, the medium comparisons were similar. Of those who said they had listened the night before, 40 percent had done so with an adult present; this proportion was 75 percent for television use. None of the children who said they had listened the night before reported having listened with friends.

As Larson and Kubey (9) have noted, popular music is by and large created by and for teenagers and young adults. Young children are listening in—"eavesdropping"—on a world of sound and words that is not aimed at them. Yet radio and popular music clearly strike a responsive chord in children.

It is entirely premature to talk about the impact of this (mis)match between medium and audience, except to say that it is an interaction that takes place, to a great extent, outside the view or concern of parents. We have shown how much less likely it is for children's radio listening to occur with an adult present than their television viewing. Behaviorally, then, parents are pretty much out of the picture. Our impression—based on preliminary analyses of questions asked of parents in connection with this study—is that they are relatively unconcerned about the impact of popular music on their children (see also 12). This situation may change with the furor (and U.S. Senate hearings) concerning the presumed effects of "objectionable" song lyrics (2, 16). We make no claims of knowledge about the kinds of things children learn from lyrics or the impact that an immersion in youth culture may have on them. Our

purpose here has been to document with fresh evidence some of the dimensions of children's patterns of use. We know with some confidence that our children are listening; we do not yet know what they are hearing.

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Consumer Spending on the Mass Media: The Principle of Relative Constancy Reconsidered

by William C. Wood

A reevaluation of statistical evidence suggests that, rather than being shut out of the market, new technologies—like every other good and service—simply must compete with older ones for the consumer's time and money.

Conventional wisdom holds that consumer spending on all forms of the mass media adds up to a constant proportion of available income. This relationship, originally known as the Hypothesis of Relative Constancy, is supported by partial correlation tests performed on data from as early as 1929. Studies by McCombs (7) covering 1929-1968 and by McCombs and Eyal (8) covering 1968-1977 provide almost five decades of data cited as confirming the relationship.

So strong is the historical evidence that the Constancy Hypothesis has been renamed the Constancy Principle and has been used to project the success of new media technologies. As an illustration, McCombs predicted in 1972 that cable-videotex-computer systems would not compete at the then-projected fee:

To succeed in the marketplace with a monthly fee of \$250 would require that the home communication center must displace most of the existing communication services now in the marketplace. The Principle of Relative Constancy could no longer hold and there would not be enough money available to pay the bills (7, p. 51).

Lower prices from technological advance would be necessary, McCombs predicted, to accommodate the new medium within a fixed share

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EXHIBIT D

**NATIONAL RESEARCH, INC. STUDY:
WHEN CHILDREN ARE IN THE
PRESENCE OF PARENTS AND OTHER ADULTS**

**WHEN CHILDREN ARE IN THE PRESENCE
OF PARENTS AND OTHER ADULTS:**

A SURVEY OF PARENTS

**National Research, Inc.
Chevy Chase, Maryland**

February 1990

METHOD

Administration. All aspects of the sampling and data collection were supervised or directly conducted by National Research, Inc., a market research firm based in Chevy Chase, Maryland. NRI is a member of both the American Association of Public Opinion Research (AAPOR) and the Market Research Association, and has had over 11 years of experience in the area of survey research, providing research expertise to a wide range of clients in both the public and private sectors.

Sample. A nationwide sample of randomly generated-telephone numbers was provided by Survey Sampling, Inc., of Fairfield, Connecticut. The sample consisted of numbers generated through random-digit dialing (RDD), a technique that produces a list of possible telephone numbers for each valid area code and telephone exchange in the United States. The advantage of this technique is the elimination of bias against homes with unlisted numbers.

The size of each list of numbers is proportionate to the size of the area code/exchanges themselves. For instance, if in a given city, there are twice as many numbers beginning with 555 as there are beginning with 554, there will be twice as many randomly-generated "555-" telephone numbers as "554-" numbers in the sample.

Of the 7,838 valid randomly-generated numbers dialed, 3,192 were successfully contacted, resulting in an initial response

rate of 40.7%. Interviewers screened for the presence of any children aged 17 or younger in the home and terminated interviews with childless households. In homes with children (30.5% of homes contacted), interviewers requested to speak to a parent or legal guardian of one of the children in the home. If no parent or guardian was available, the interviewer made arrangements to call back at a later point in time.

Survey Instrument/Interview. The questionnaire was developed by researchers at National Research, Inc., of Chevy Chase, MD and at the National Association of Broadcasters, of Washington, DC. Every effort was made to make the questions as easy to answer as possible. A copy is attached as Appendix A.

The questionnaire was to be administered only to parents in households with at least one child 17 of age or younger. The initial questions screens for such respondents, introduced the survey, and continued with a series of questions about how the parent spent his/her time the day prior to the interview.

Following these "warm-up" questions, parents were asked to choose one of the children in the house at random (the one who most recently celebrated a birthday, a standard random selection technique). Parents were then asked if that child was home the entire time between 6:00 a.m. and 10:00 a.m. the day prior to the interview. If the child was not home during that entire time, parents were asked at what times during that period the child was at school, going to school, or taking part in a school-sponsored activity.

Regardless of home/school status, parents were asked if the child was in the presence of at least one adult 18 years old or older the entire time from 6:00 a.m. to 10:00 a.m. the previous day. If not, the half-hours in which an adult was indeed present were determined. The same questions were asked about whether or not the child was in the presence of at least one parent, step-parent, or legal guardian during this time.

This sequence of questions was repeated for the same child for the period of 6:00 p.m. to midnight the evening prior to the interview, after which parents were asked when the child went to sleep. If that time was after 12:00 midnight, the above sequence of questions was asked for the time between midnight and 6:00 a.m. the morning of the interview.

The pretest took place over the nights of January 9th and 10th, 1990. No discernible problems were found with the instrument other than the need to move from recording activities on a hourly basis to recording them half-hour by half-hour. The actual 1000 interviews were completed between 17th and the 23rd and between the 30th and 31st of January, 1990. Interviews were equally distributed throughout the days of the week

Analysis. The analysis was performed by National Research, Inc., of Chevy Chase, MD, in consultation with researchers at the National Association of Broadcasters.

While questions were phrased to make them easier to answer, the analysis required the data to be arranged in a systematic format. Four sets of variables were constructed using the

responses to the questionnaire. Set One consisted of true/false variables, one for each half-hour covered in the questionnaire (6:00 a.m. to 10:00 a.m. and 6:00 p.m. to 6:00 a.m.). Each variable in set one, if true, indicates that the parent either answered "yes" when asked that the child was in the presence of an adult during that time or reported that the child had gone to sleep by that time. For example, to qualify as a "yes" for the Set One variable representing 8:00 p.m.-8:30 p.m., the parent must have said that the child was in the presence of an adult the entire time between 6:00 p.m. and 12:00 midnight, that the child was in the presence of an adult during that specific half-hour, or that the child went to sleep at 8:00 or earlier.

Set Two followed the same pattern as Set One but included, for each half-hour, whether the child was at school, going to or from school, or at a school-sponsored activity.

Sets Three and Four mirrored Sets One and Two, respectively, replacing the word "adult" with "parent."

RESULTS

Table 1 presents a half-hour by half-hour breakdown of (a) the percent of children in the presence of an adult or asleep, and (b) the percent of children in the presence of an adult, asleep, or at school, travelling to or from school, or taking part in a school-sponsored activity.

Table 2 presents a half-hour by half-hour breakdown of (a) the percent of children in the presence of a parent or asleep, and (b) the percent of children in the presence of a parent, asleep, or at school, travelling to or from school, or taking part in a school-sponsored activity.

At no time during the periods included in the survey are fewer than 96% of all children in the presence of at least one adult. If school or school-related activities are included, the percentage never drops below 98%.

With the exception of mornings after 7:00 a.m., there is no time during the during the times of day included in the survey that fewer than 90% of all children are in the presence of at least one parent (or asleep). If time at school is included, that percentage never drops below 93% for any time of the morning or evening.

Table 1: Adult Presence

Time of Day	Percent of Children in the Presence of an Adult or Asleep (n = 1000)	Percent of Children in the Presence of an Adult, Asleep, or at School (n = 1000)
6:00am- 6:30am	97.6%	99.9%
6:30am- 7:00am	97.1%	99.9%
7:00am- 7:30am	97.2%	100.0%
7:30am- 8:00am	96.9%	99.9%
8:00am- 8:30am	97.1%	100.0%
8:30am- 9:00am	96.9%	100.0%
9:00am- 9:30am	96.8%	100.0%
9:30am- 10:00am	96.6%	100.0%
6:00pm- 6:30pm	96.8%	98.2%
6:30pm- 7:00pm	96.7%	98.2%
7:00pm- 7:30pm	96.7%	98.2%
7:30pm- 8:00pm	96.3%	98.2%
8:00pm- 8:30pm	96.5%	98.4%
8:30pm- 9:00pm	96.7%	98.4%
9:00pm- 9:30pm	97.3%	98.7%
9:30pm- 10:00pm	97.6%	98.8%
10:00pm- 10:30pm	98.3%	99.2%
10:30pm- 11:00pm	98.5%	99.2%
11:00pm- 11:30pm	98.8%	99.3%
11:30pm- 12:00am	98.9%	99.3%
12:00am- 12:30am	98.7%	98.7%
12:30am- 1:00am	98.7%	98.7%
1:00am- 1:30am	98.8%	98.8%
1:30am- 2:00am	98.8%	98.8%
2:00am- 2:30am	98.8%	98.8%
2:30am- 3:00am	98.8%	98.8%
3:00am- 3:30am	98.8%	98.8%
3:30am- 4:00am	98.8%	98.8%
4:00am- 4:30am	98.8%	98.8%
4:30am- 5:00am	98.8%	98.8%
5:00am- 5:30am	98.8%	98.8%
5:30am- 6:00am	98.8%	98.8%

Table 2: Parental Presence

Time of Day	Percent of Children in the Presence of a Parent or Asleep	Percent of Children in the Presence of a Parent, Asleep, or at School
	(n = 1000)	(n = 1000)
6:00am- 6:30am	93.3%	97.5%
6:30am- 7:00am	90.9%	97.1%
7:00am- 7:30am	84.5%	96.6%
7:30am- 8:00am	76.9%	95.8%
8:00am- 8:30am	66.1%	95.0%
8:30am- 9:00am	62.1%	94.1%
9:00am- 9:30am	60.2%	93.4%
9:30am- 10:00am	59.6%	93.2%
6:00pm- 6:30pm	88.4%	93.7%
6:30pm- 7:00pm	88.2%	93.6%
7:00pm- 7:30pm	87.7%	93.0%
7:30pm- 8:00pm	87.4%	92.7%
8:00pm- 8:30pm	88.4%	93.4%
8:30pm- 9:00pm	88.9%	93.3%
9:00pm- 9:30pm	91.1%	94.5%
9:30pm- 10:00pm	92.4%	95.1%
10:00pm- 10:30pm	94.2%	96.4%
10:30pm- 11:00pm	94.9%	96.6%
11:00pm- 11:30pm	96.8%	97.6%
11:30pm- 12:00am	97.3%	98.0%
12:00am- 12:30am	98.4%	98.5%
12:30am- 1:00am	98.6%	98.6%
1:00am- 1:30am	98.8%	98.8%
1:30am- 2:00am	98.8%	98.8%
2:00am- 2:30am	98.8%	98.8%
2:30am- 3:00am	98.8%	98.8%
3:00am- 3:30am	98.8%	98.8%
3:30am- 4:00am	98.8%	98.8%
4:00am- 4:30am	98.8%	98.8%
4:30am- 5:00am	98.8%	98.8%
5:00am- 5:30am	98.8%	98.8%
5:30am- 6:00am	98.8%	98.8%

APPENDIX A: SURVEY INSTRUMENT

ADULT/CHILD SUPERVISION SURVEY

January 1990

INTRODUCTION: Hello, I'm _____ from _____.
We are a national survey research firm located in _____
and we are not selling anything.
We are conducting a national survey and would like
to ask you a few brief questions. Your phone
number was drawn completely at random and will
never be used as part of a list to sell any
products.

1. Are there any children, 17 years or younger, living in
your household?

(1) YES CONTINUE.
(2) NO TERMINATE.
(3) DON'T KNOW/REFUSED TERMINATE.
2. Are you 18 years of age or older?

(1) YES CONTINUE.
(2) NO SKIP TO 4.
(3) DON'T KNOW/REFUSED SKIP TO 4.
3. Are you the parent or legal guardian of any of these
children?

(1) YES SKIP TO 5.
(2) NO CONTINUE.
(3) DON'T KNOW/REFUSED CONTINUE.
4. May I speak with someone who is 18 or older and a parent
or guardian of any of the children in your household?

(1) YES REREAD INTRODUCTION AND CONTINUE.
(2) NO ONE AVAILABLE NOW . MAKE APPT., CALL BACK LATER.
(3) NO TERMINATE.

5. We're doing a survey on how Americans spend their time throughout the day. We'd like to ask you a few questions about how you spent your time during specific parts of the day yesterday.

Were you home the entire time between 6 a.m. and 10 a.m.?

- (1) YES SKIP TO 6.
 (2) NO CONTINUE.
 (3) DK/REF CONTINUE.

- 5a. How many hours did you spend at home between 6 a.m. and 10 a.m.?

_____ HOURS ("00" = DON'T KNOW/REFUSED)

- 5b. For the time you were NOT at home between 6 a.m. and 10 a.m. yesterday, during which hours were you at work or going to work?

CIRCLE ALL THAT APPLY

		WORK	
		RELTD.	NOT
5b1.	600AM - 630AM	(1)	(2)
5b2.	630AM - 700AM	(1)	(2)
5b3.	700AM - 730AM	(1)	(2)
5b4.	730AM - 800AM	(1)	(2)
5b5.	800AM - 830AM	(1)	(2)
5b6.	830AM - 900AM	(1)	(2)
5b7.	900AM - 930AM	(1)	(2)
5b8.	930AM -1000AM	(1)	(2)

6. Were you at home the entire time between 6 p.m. and 12 midnight yesterday?

- (1) YES SKIP TO 7.
 (2) NO CONTINUE.
 (3) DON'T KNOW/REFUSED CONTINUE.

- 6a. How many hours did you spend at home between 6 p.m. and 12 midnight?

_____ HOURS ("00" = DON'T KNOW/REFUSED)

Adult/Parental Presence Survey / Page 10

- 6b. For the time you were NOT at home between 6 p.m. and 12 midnight yesterday, during which hours were you at work or going to or from work?

CIRCLE ALL THAT APPLY

		WORK- RELTD.	NOT
6b1.	600PM- 630PM	(1)	(2)
6b2.	630PM- 700PM	(1)	(2)
6b3.	700PM- 730PM	(1)	(2)
6b4.	730PM- 800PM	(1)	(2)
6b5.	800PM- 830PM	(1)	(2)
6b6.	830PM- 900PM	(1)	(2)
6b7.	900PM- 930PM	(1)	(2)
6b8.	930PM-1000PM	(1)	(2)
6b9.	1000PM-1030PM	(1)	(2)
6b10.	1030PM-1100PM	(1)	(2)
6b11.	1100PM-1130PM	(1)	(2)
6b12.	1130PM-12MID	(1)	(2)

7. Part of our study involves how children spend their time, so now I'd like to ask you some questions about your children.

How many children 17 years old and under live in your home?

IF MORE THAN ONE: Let's make it easier by picking the one who had the most recent birthday, how old is that child?

IF ONE: How old is that child?

RECORD AGE: _____

8. Is that _____-year old a boy or a girl?

- (1) BOY
- (2) GIRL
- (3) REFUSED

9. I want to ask you several questions about how [he/she] spent [his/her] time yesterday. Thinking back to yesterday morning, was [he/she] home the entire time between the hours of 6 a.m. and 10 a.m.?

- (1) YES SKIP TO 10.
 (2) NO CONTINUE.
 (3) DON'T KNOW/REFUSED CONTINUE.

- 9a. During which hours was [he/she] home between 6 a.m. and 10 a.m.?

		AT HOME	NOT
9a1.	600AM - 630AM	(1)	(2)
9a2.	630AM - 700AM	(1)	(2)
9a3.	700AM - 730AM	(1)	(2)
9a4.	730AM - 800AM	(1)	(2)
9a5.	800AM - 830AM	(1)	(2)
9a6.	830AM - 900AM	(1)	(2)
9a7.	900AM - 930AM	(1)	(2)
9a8.	930AM -1000AM	(1)	(2)

- 9b. During the time [he/she] was not at home, during which hours was she at school, going to school, or taking part in a school-sponsored activity?

		SCHOOL- REL.	NO
9b1.	600AM - 630AM	(1)	(2)
9b2.	630AM - 700AM	(1)	(2)
9b3.	700AM - 730AM	(1)	(2)
9b4.	730AM - 800AM	(1)	(2)
9b5.	800AM - 830AM	(1)	(2)
9b6.	830AM - 900AM	(1)	(2)
9b7.	900AM - 930AM	(1)	(2)
9b8.	930AM -1000AM	(1)	(2)

10. Was [he/she] in the presence of an adult, you or anyone else 18 or older, the entire time from 6 a.m. to 10 a.m.?

- (1) YES CONTINUE.
 (2) NO SKIP TO 10b.
 (3) DON'T KNOW/REFUSED SKIP TO 10b.

Adult/Parental Presence Survey / Page 12

10a. Was [he/she] in the presence of at least one parent, stepparent, or legal guardian the entire time from 6 a.m. to 10 a.m.?

- (1) YES SKIP TO 11, 14.
(2) NO SKIP TO 10c.
(3) DON'T KNOW/REFUSED SKIP TO 10c.

10b. During which hours between 6 a.m. and 10 a.m. was [he/she] in the presence of at least one adult?

		PRES	NO
10b1.	600AM - 630AM	(1)	(2)
10b2.	630AM - 700AM	(1)	(2)
10b3.	700AM - 730AM	(1)	(2)
10b4.	730AM - 800AM	(1)	(2)
10b5.	800AM - 830AM	(1)	(2)
10b6.	830AM - 900AM	(1)	(2)
10b7.	900AM - 930AM	(1)	(2)
10b8.	930AM -1000AM	(1)	(2)

IF ALL "NO" RESPONSES/NO ADULTS PRESENT, SKIP TO 11, 14.

10c. During which hours between 6 a.m. and 10 a.m. was [he/she] in the presence of at least one parent, stepparent, or legal guardian?

CIRCLE ALL THAT APPLY:

		PRES	NO
10c1.	600AM - 630AM	(1)	(2)
10c2.	630AM - 700AM	(1)	(2)
10c3.	700AM - 730AM	(1)	(2)
10c4.	730AM - 800AM	(1)	(2)
10c5.	800AM - 830AM	(1)	(2)
10c6.	830AM - 900AM	(1)	(2)
10c7.	900AM - 930AM	(1)	(2)
10c8.	930AM -1000AM	(1)	(2)

11. Thinking back to yesterday evening, was [he/she] home the entire time between the hours of 6 p.m. and midnight?

- (1) YES SKIP TO 12.
 (2) NO CONTINUE.
 (3) DON'T KNOW/REFUSED CONTINUE.

11a. During which hours was [he/she] home between 6 p.m. and midnight last night?

		AT	
		HOME	NOT
11a1.	600PM- 630PM	(1)	(2)
11a2.	630PM- 700PM	(1)	(2)
11a3.	700PM- 730PM	(1)	(2)
11a4.	730PM- 800PM	(1)	(2)
11a5.	800PM- 830PM	(1)	(2)
11a6.	830PM- 900PM	(1)	(2)
11a7.	900PM- 930PM	(1)	(2)
11a8.	930PM-1000PM	(1)	(2)
11a9.	1000PM-1030PM	(1)	(2)
11a10.	1030PM-1100PM	(1)	(2)
11a11.	1100PM-1130PM	(1)	(2)
11a12.	1130PM-12MID	(1)	(2)

11b. During the time [he/she] was not at home, during which hours was she at school, going to or from school, or taking part in a school-sponsored activity?

		SCHOOL-	
		REL.	NOT
11b1.	600PM- 630PM	(1)	(2)
11b2.	630PM- 700PM	(1)	(2)
11b3.	700PM- 730PM	(1)	(2)
11b4.	730PM- 800PM	(1)	(2)
11b5.	800PM- 830PM	(1)	(2)
11b6.	830PM- 900PM	(1)	(2)
11b7.	900PM- 930PM	(1)	(2)
11b8.	930PM-1000PM	(1)	(2)
11b9.	1000PM-1030PM	(1)	(2)
11b10.	1030PM-1100PM	(1)	(2)
11b11.	1100PM-1130PM	(1)	(2)
11b12.	1130PM-12MID	(1)	(2)